

*On the Cephalo-humeral Muscle and the so-called rudimental Clavicle of Carnivora.*—DR. HARRISON ALLEN spoke of some of the peculiarities of the cephalo-humeral muscle in mammals and invited especial attention to the presence of a small fibro-cartilaginous disc in the junction of the cephalo-humeral with the muscles which are inserted in the bones at the region of the shoulder. This is well defined in *Felis* and is identified as a rudimental clavicle. Dr. Allen had detected this structure in *Herpestis*, *Taxidea*, *Cercoleptes*, *Bassaris* and *Procyon*.

The cartilage is either in the form of a flat disc or a minute scythe-shaped rod, and is constant in lying directly over the greatest convexity formed by the round of the shoulder. It seems to give strength to the centre of a muscle-system of which the cephalic, cervical, pectoral and latissimal sheets are parts. The identification of such a plate or rod with a true clavicle is doubtful since in *Balantiopteryx* (a genus of bats) the structure above described is remarkably developed while the clavicle is as well formed as in any other animal. The long rod-like body is continuous with a fascicle of fibres arising from the pectoralis and receives the insertion of the occipito-pollicalis. The anterior end of the rod lies in the upper border of the wing membrane and is continuous with the fibrous thread which represents the tendon of the occipito-pollicalis as this muscle is defined in the bats generally. From both the proximal and distal divisions of this muscle delicate fascicles pass toward the elbow and the entire plan appears to be associated with the rudiment of the characteristic skin sac. Slight modification of this arrangement is met with in the allied genus *Rhynchonycteris*.

Comparison of this arrangement with that seen in the common brown bat (*Adelonycteris fuscus*), the noctula bat (*Noctulinia noctula*), and the false vampire (*Vampyrus spectrum*) showed that the part taken by the rod in *Balantiopteryx* is the tendon of a pectoral muscle-fascicle which is inserted into the occipito-pollicial muscle as it crosses the shoulder, while in the group of the Molossi the muscle-fascicle is fleshy throughout its entire extent, but on the whole preserving the same relations. Thus the fibro-cartilage of *Balantiopteryx* is represented by fibrous tissue in *Adelonycteris* and both these in turn by muscle in the Molossi. Dr. Allen believed that it was inexact to speak of a clavicle and of this rod as things which were equal. The clavicle acts with the scapula in supporting the head of the humerus but in no wise limiting or determining its movements, while the rod is always over the outer aspect of the shaft of the humerus below its head and here acts as a check to abduction of this bone.